

## A. Wasted Time

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Mr. Scrooge, a very busy man, decided to count the time he wastes on all sorts of useless stuff to evaluate the lost profit. He has already counted the time he wastes sleeping and eating. And now Mr. Scrooge wants to count the time he has wasted signing papers.

Mr. Scrooge's signature can be represented as a polyline  $A_1A_2\dots A_n$ . Scrooge signs like that: first it places a pen at the point  $A_1$ , then draws a segment from point  $A_1$  to point  $A_2$ , then he draws a segment from point  $A_2$  to point  $A_3$  and so on to point  $A_n$ , where he stops signing and takes the pen off the paper. At that the resulting line can intersect with itself and partially repeat itself but Scrooge pays no attention to it and never changes his signing style. As Scrooge makes the signature, he never takes the pen off the paper and his writing speed is constant — 50 millimeters per second.

Scrooge signed exactly  $k$  papers throughout his life and all those signatures look the same.

Find the total time Scrooge wasted signing the papers.

### Input

The first line contains two integers  $n$  and  $k$  ( $2 \leq n \leq 100$ ,  $1 \leq k \leq 1000$ ). Each of the following  $n$  lines contains the coordinates of the polyline's endpoints. The  $i$ -th one contains coordinates of the point  $A_i$  — integers  $x_i$  and  $y_i$ , separated by a space.

All points  $A_i$  are different. The absolute value of all coordinates does not exceed 20. The coordinates are measured in millimeters.

### Output

Print one real number — the total time Scrooges wastes on signing the papers in seconds. The absolute or relative error should not exceed  $10^{-6}$ .

### Examples

input	Copy
2 1 0 0 10 0	
output	Copy
0.200000000	

input	Copy
5 10 3 1 -5 6 -2 -1 3 2 10 0	
output	Copy
6.032163204	

input	Copy
6 10 5 0 4 0 6 0	

### → Attention

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

### Codeforces Beta Round #93 (Div. 2 Only)

Finished

Practice



### → Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

### → Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

### → Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

### → Submit?

Language: Java 1.8.0\_241 ▼

Choose file: Choose File No file chosen

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.